

## Terminology

**System** - All files developed for the purposes of satisfying the client level requirements.

- **Data display module** - displays status updates and events to the user
- **Controller simulator** - Generates status updates and events then sends via RS422 serial protocol to the data display module.
- **Log file** - Will be periodically updated by the data display module with events generated by the controller simulator.
- **Installer** - will deploy the project in the customers system and perform environment setup and initialization. Will record initial user preferences and take them into account during installation. I.e. “Do you want a shortcut on your desktop?”

**Environment** - The directory our system will be placed in

**Status information** - (See class diagram for specifics) General data pertaining to the weapon which can be measured at any point in time during connection.

## Client level requirements

- REQ01 - The data display module shall be a desktop application.
- REQ02 - The data display module shall read input data via RS422 serial protocol from the controller simulator.
- REQ03 - The data display module shall have the ability to record events to a log file.
- REQ04 - The data display module shall display all status information directly to the application’s window.
- REQ05 - The data display module shall not require admin rights to install, set up, or use.
- REQ06 - The data display module shall include filtering options to filter events and errors along the following categories
  - a. show only errors
  - b. show only cleared errors
  - c. show only active errors
  - d. show only events

## System Level Requirements

- REQ07 - The system and its environment shall be installed via an installer file.
- REQ08 - The system shall be portable on devices running windows 10 or 11.
- REQ09G - The system should be portable on Debian Linux distributions.
- REQ10 - The system shall include a controller simulator which will generate and send status updates and events to the data display module for testing purposes.

## Software Level Requirements

- Validate Client and System level requirements before writing software level requirements.

Non Functional Requirement: GUI offers high visibility in bright conditions (especially with low screen brightness)